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Garman

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[54] **QUICK-DETACHABLE ARCHERY QUIVER**

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[52] **U.S. Cl.** ..... **124/30 R;** 224/1 B

[51] **Int. Cl.²** **F41B 5/06**

[58] **Field of Search**.... 124/24 A, 23 A, 30 R, 24 R, 124/23 R, 41, 45; 221/1 B

[56] **References Cited**

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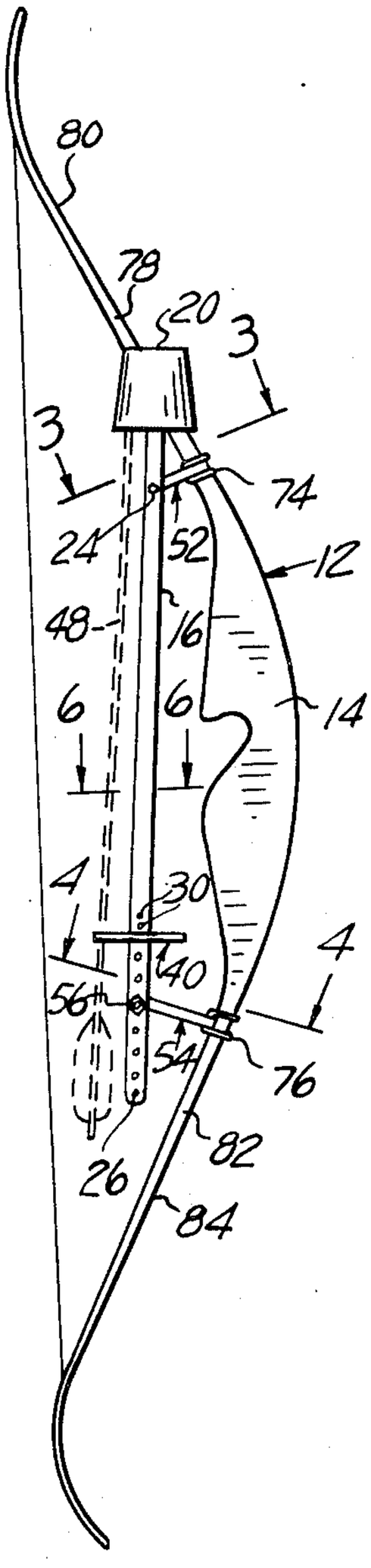
[57] **ABSTRACT**

An elongated vertical bar or "spine" at its top carries an inverted cup containing a sponge plastic bottom pad for receiving the pointed tips of hunting arrows, and near its lower end carries a circumferentially key-hole-notched plate of resilient material fastened to one of a series of vertically-spaced holes in said bar. Secured to two others of these holes are two vertically-spaced upper and lower bow-attachment angle brackets adapted to be detachably attached to the bow by resilient O-rings looped around them and around the bow.

4 Claims, 6 Drawing Figures



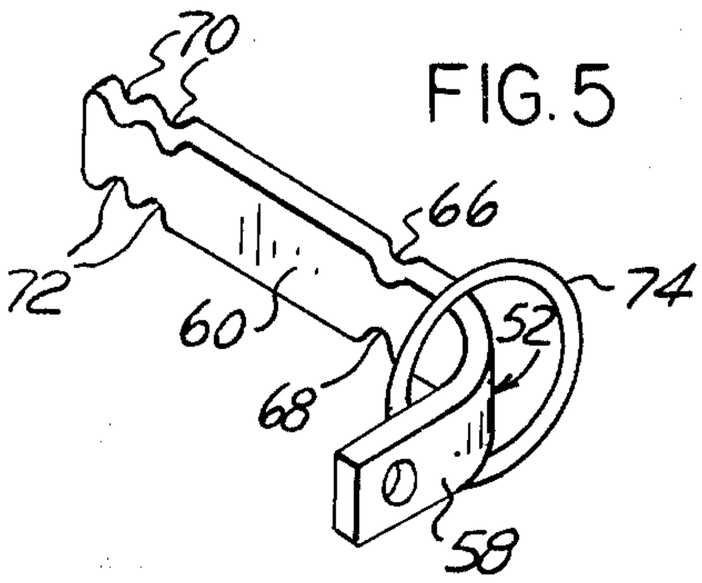


FIG. 5

FIG. 2

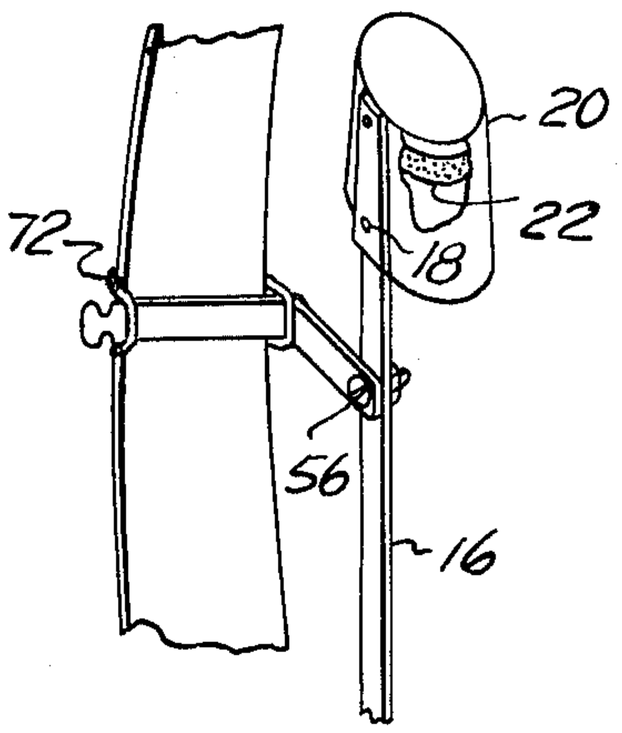


FIG. 6

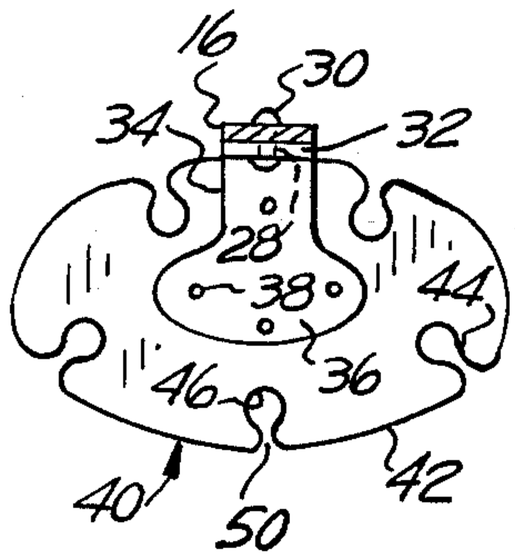


FIG. 3

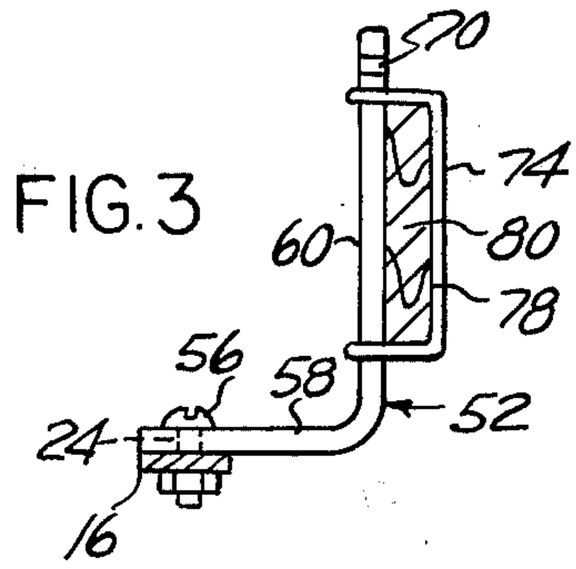


FIG. 4

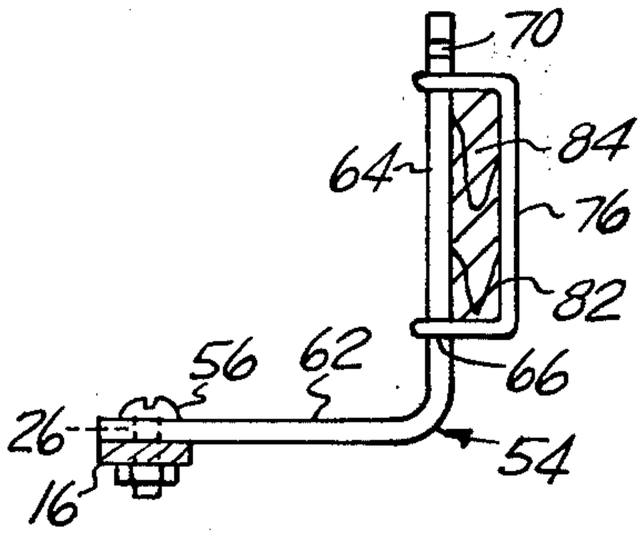
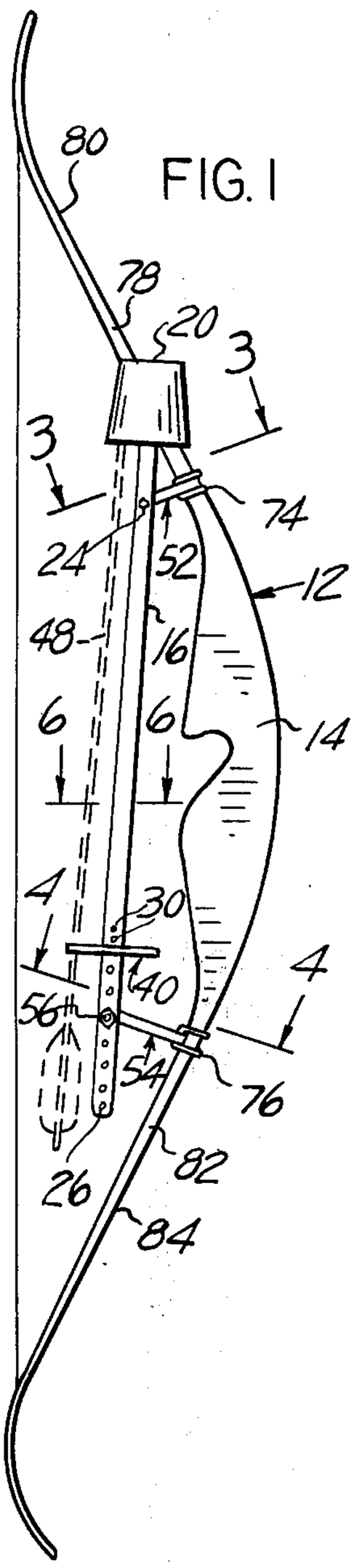


FIG. 1



QUICK-DETACHABLE ARCHERY QUIVER

SUMMARY OF THE INVENTION

The quiver is quickly and easily attached to or detached from the bow by looping or unlooping the O-rings which extend from the inner end of each angle bracket around the bow to the outer end of the same angle bracket. This enables the arrows in the keyhole notches of the quiver to be rendered instantly accessible during hunting yet quickly and easily detached from the bow when the hunt is over and the quiver and bow are most conveniently transported separately. The spine located at the side of the cup and at the side of the keyhole-slotted plate serves to protect the arrows from contact with tree branches, brush and the like during hunting.

In the drawing,

FIG. **1** is a view, on a reduced scale, of a hunting archery bow equipped with the quick-detachable quiver of the present invention, with an arrow indicated in dashed lines;

FIG. **2** is an enlarged perspective view, partly broken away, of the upper part of the quiver, attached to the bow;

FIGS. **3** and **4** are enlarged approximately horizontal sections taken along the lines **3—3** and **4—4** in FIG. **1;**

FIG. **5** is an enlarged perspective view of one of the upper quiver-attaching angle brackets, removed from the spine, and encircled by an O-ring in its relaxed position; and

FIG. **6** is an enlarged horizontal section taken along the line **6—6** in FIG. **1,** showing the keyhole-notched arrow-holding plate and its attachment bracket secured to the spine.

Referring to the drawing in detail, FIG. **1** shows a quick-detachable archery quiver, generally designated **10,** mounted on a hunting archery bow **12,** according to one form of the present invention. The bow **12** is conventional and its details are beyond the scope of the present invention. The quiver **10** is attached to the bow **12** at locations closely adjacent the upper and lower ends of the hand grip **14** thereof in the manner described below.

The quiver **10** has a single elongated approximately vertical support bar or spine **16,** to the upper end of which is fastened, as by rivets **18,** an arrow head cover or upper arrow holder in the form of an inverted cup **20** of oval cross-section. Secured as by an adhesive to the bottom of the cup **20** on the inside thereof is a sponge plastic or sponge rubber pad **22** for penetration by the pointed arrow tips. The cup **20** is conveniently made of synthetic plastic material. The spine **16** is conveniently made of wood, light metal or plastic and near its upper end is provided with an upper fastener hole **24** while extending upward from its lower end are multiple vertically-spaced lower fastener holes **26.** Above the upper end of this series of holes **26** are two closely-spaced holes **28** which receive rivets **30** or other suitable fasteners (FIG. **6**) securing the upper arm **32** of an angle bracket **34** to the spine **16.** The other arm **36** of the angle bracket **34** is drilled for the reception of fasteners **38,** such as rivets, which secure to it an oval arrow-holding plate **40** of resilient material such as rubber provided at spaced intervals around its peripheral edge **42** with keyhole notches **44,** the circular inner portions **46** of which are slightly less in diameter than the diameter of the shaft of an arrow **48** so as to lightly grip the shaft whereas the slot portions or necks **50** extending outward to the peripheral edge **42** are considerably narrower. The result is that the shaft of the arrow **48** must be pushed forcibly through the slot portions or necks **50** into the circular inner portions **46,** and yieldingly held therein.

Mounted near the opposite ends of the spine in the upper hole **24** and in one of the lower fastener holes **26** are L-shaped upper and lower bow-attachment angle brakcets **52** and **54** of vertically-elongated cross-section (FIGS. **3** and **4**) respectively secured therein by bolts or other suitable fasteners **56.** The two attachment brackets **52** and **54** are of similar construction and differ only in the lengths of their inner arms. The upper attachment bracket **52** consists of a relatively short inner arm **58** and a slightly longer outer arm **60,** whereas the lower attachment bracket **54** has a somewhat longer inner arm **62** and an outer arm **64** of approximately the same length as the outer arm **60** of the upper attachment bracket **52.** Both of the attachment brackets **52** and **54** are provided on their upper edges with longitudinally-spaced upper and lower inner notches **66** and **68** (FIG. **5**) and near their outer ends are similarly provided with dual upper and lower notches **70** and **72** respectively. These notches, at their open ends, are of approximately the widths of upper and lower O-rings **74** and **76** of resilient material such as rubber or other elastomeric material, adapted to be seated therein, as explained below.

In the use of the invention, let it be assumed that the quiver **10** is detached from the bow **12** and is to be attached thereto. To do so the user places the outer arm **60** of the upper attachment bracket **52** against the side **78** of the upper limb **80** of the bow **12** after threading an upper O-ring **74** upon the outer arm **60** into the inner notches **66** and **68** thereof. He now stretches the upper O-ring **74** around the upper bow limb **80** and around the outer end of the outer arm **60** of the upper attachment bracket **62** and loops it into and around a pair of the outer notches **70** and **72.** He then repeats this operation with the lower attachment bracket **54** (FIG. **4**) by placing the outer arm **64** thereof against the side **82** of the lower limb **84** of the bow **12** and then looping the lower O-ring **76** from its inner notches **66** and **68** around the lower bow limb **84** and into and around a pair of its outer notches **70** and **72.** The quiver **10** and bow **12** are then ready for use in hunting, after arrows **48** have been installed in the quiver **10** with their pointed tips penetrating the pad **22** in the cup **20** and with the lower portions of their shafts snapped into the keyhole notches **44** in the resilient plate **40.** The removal of the quiver **10** from the bow **12** is believed to be self-evident as it merely involves reversing the above-described procedure by unlooping the O-rings **74** and **76** from their respective positions around the upper and lower bow limbs **80** and **84** and from the outer ends of their respective outer arms **60** and **64** of their respective attachment brackets **52** and **54.**

From the foregoing description and the figures of the drawing, it will be seen that the quiver of the present invention is quickly and easily mounted on or removed from either the right-hand or left-hand side of the bow, to adapt it to the use of either right-handed or left-handed archers. It will also be seen that this quiver is so mounted without drilling the bow or otherwise permanently marring the surface of any part of the bow. Finally, this quiver is extremely light in weight, and therefore adds the minimum of weight to the weight of the

bow itself.

It will also be evident from FIG. **2** that the varied spacing of the different notches **70, 72** along the outer arms **60** and **64** enable the attachment brackets **52** and **54** to fit different widths of bow limbs **80** and **84** more closely and tightly than would otherwise be possible, thus preventing slippage of the brackets **52** and **54** relatively to the bow limbs **80** and **84.**

I claim:

1. A quick-detachable arrow quiver adapted to be attached to the upper and lower limbs of a conventional archery bow, said quiver comprising

a single elongated substantially vertical support bar,

an upper arrow holder stationarily secured adjacent an edge thereof to the upper portion of said support bar,

a lower arrow holder stationarily secured adjacent an edge thereof to the lower portion of said support bar in vertically-spaced relationship to said upper arrow holder,

said lower arrow holder having arrow grippers spaced apart from one another around the entire

periphery thereof for releasably gripping a plurality of arrows,

and upper and lower L-shaped angle brackets of vertically-elongated cross-section having inner arms secured to said upper and lower portions of said support bar in vertically-spaced relationship thereon and having outer arms adapted to abuttingly engage respectively the rearward faces of the upper and lower limbs of the bow.

2. A quick-detachable arrow quiver, according to claim **1,** wherein said outer arms have upper and lower edges with upper and lower notches disposed in pairs therein and wherein said pairs of notches are spaced apart from one another along said arms.

3. A quick-detachable arrow quiver, according to claim **1,** wherein said elongated flexible securing elements are endless resilient securing elements.

4. A quick-detachable arrow quiver, according to claim **1,** wherein said lower arrow holder is of elongated approximately oval outline, and wherein said support bar is disposed on the a side of said arrow holder.

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